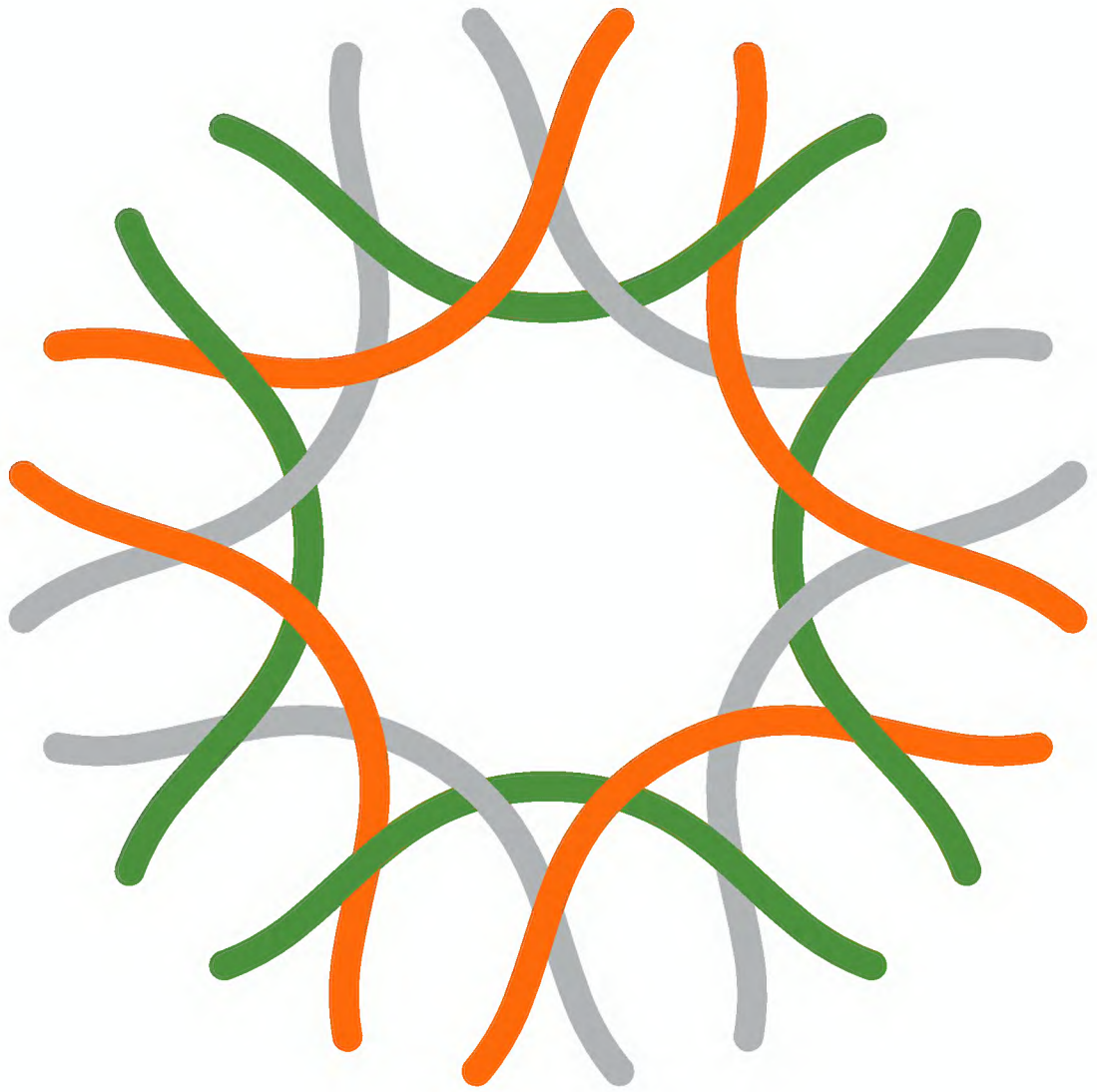
CALIFORNIA ACADEMY OF SCIENCES

Annual Report

Fiscal Year 2007



When you change one thing, everything changes.

The epicenter of this change, the catalyst in an incredible reaction of curiosity and exploration, is the new California Academy of Sciences, a place that exists at the junction of what is past and what is possible—a place that lives, and breathes, and aims to practice, instead of preach. A place that will not just educate, but energize all who enter, and transform them into stewards of the planet.

Opening 9.27.08.

GRAPHIC PANEL
FOR FUTURE USE

RF 5 RAMP THROUGH MID STORY

GRAPHIC PANEL
SEE 05/107.60

16 ARTIFICIAL TREE
SEE CDI SET DWGS

GRAPHIC PANEL
OR 05/107

PROJECTION SCREEN
OR 05/107

13 ARTIFICIAL TREE W/
LEAF CUTTER ANTS
RESTING STATION
OR 05/107

LIANA W/ LEAFCUTTER ANTS

OUTLINE OF FLOOR
ABOVE

OUTDOOR SIGN SCRIM
OR 07/C7

GRAPHIC PANEL
ON TROPIC MID STOP
DID UNIVERSITY
OR 06/C08

VINE OF "CANOPY"

FIXED LYRE BIKE /
SCOPE TO LEAF CUTTER
ANT RESTING SITE

BRANCHES

CANOPY FLOOR
OR 06/C03

PLANTER
OR 06/116

SMALL INSECTS
OR 06/101

INVERTS & ARTHROPODS
OF AMAZONIAN SCENE. DOUBLE SIDED
INTERP PANEL
OR 06/C05

PLANTER
OR 06/117

RF6 MADAGASCAR FOCUS GALLERY

GRAPHIC PANEL
OR 06/C04

RISERS OF
MADAGASCAR

RAINBOW RISER
OR 06/100

SMALL SNAKE
OR 06/101

YELLOW-LEAD
DOT CLICKER
@ OR 06/113

CLEAR TAIL
CLICKER
OR 06/115

CIRCLES
OR 06/119

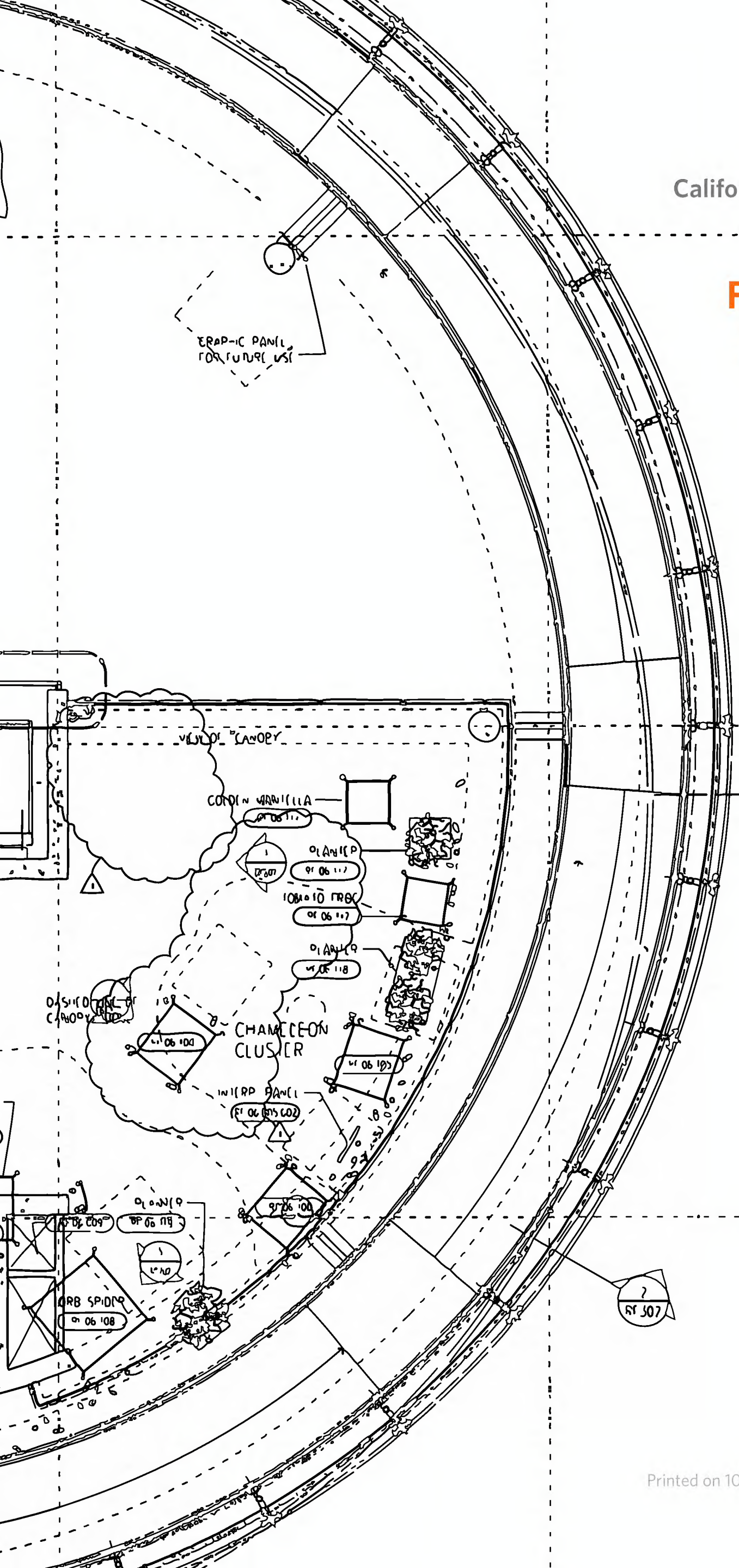
PLANTER
OR 06/120

UP

DN

RF 7 RAMP THROUGH CANOPY

LAYERS OF RAINFOREST
OR 05/101



California Academy of Sciences

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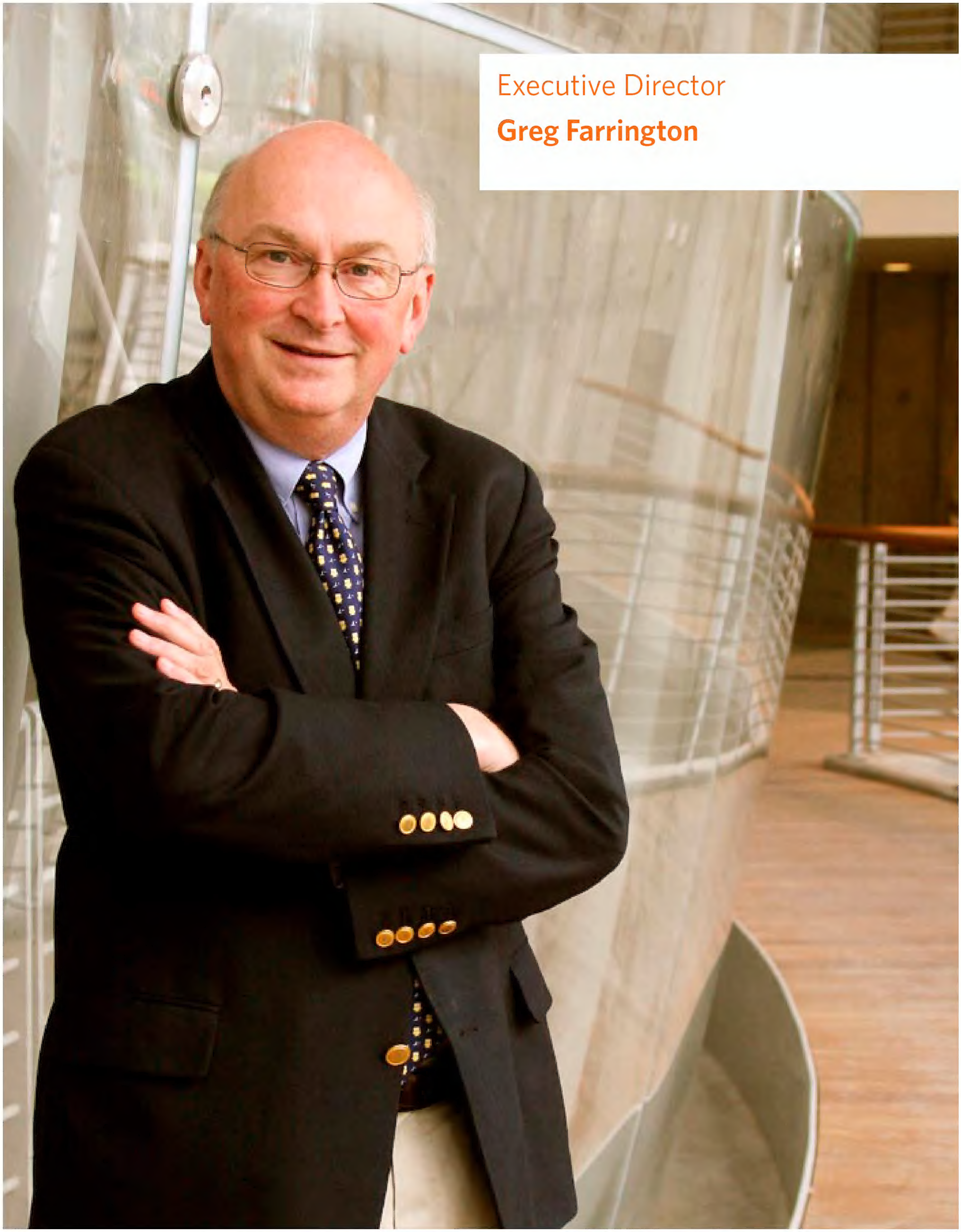

Executive Director

Greg Farrington

Here's something you never expected to read in our annual report: These days, there isn't much to see at the California Academy of Sciences.

That's because the Academy is in the throes of its second "great migration" in four years, this time back to Golden Gate Park. Today, the calendar here at 875 Howard Street says "111 days till opening." By the time you read this, we will be on a whole new calendar page. And soon we'll be counting hours.

This countdown to "show time" is very exciting for a chemist-by-training and a college president by former profession. I celebrated my first year at the Academy in February, and as we approach our opening in Golden Gate Park, I'm reminded why I was drawn to this city, this institution, and this historic moment: Helping to lead the Academy into a new home and a new era was an irresistible adventure. And it has just begun.

That's not to say that 2007 wasn't a year to remember. As you'll see in the brief highlights that follow, the Academy continued its tradition of eye-opening exhibits, groundbreaking research, important education programs, and adventurous expeditions. And we made history with progress toward the world's largest public LEED-certified Platinum building, set in one of the world's great urban parks.

As we reflect on 2007, we invite you to get ready for the even bigger adventure ahead. From our new home, we will pursue answers to questions that deeply concern all of us as human beings — from "How did life on Earth begin?" to "How can we sustain this planet we call home?" Together, on September 27, 2008, we will enter a new phase in the life of an institution that deepens our connections with science and never fails to evoke exclamations of "Wow!" from friends and visitors. I look forward to sharing the experience with you. —Greg Farrington

A Year of Friends, Old and New ...

In 2007, the Academy welcomed 300,000 visitors to 875 Howard Street in downtown San Francisco—80,000 of them through programs with local schools.

... of Eye-opening Exhibits ...

Dinosaurs: Ancient Fossils, New Discoveries (September 16, 2006 – February 4, 2007) took visitors back 130 million years to walk among life-size models of dinosaurs, reptiles, and birds —including a mechanical *T. rex* skeleton—shattering preconceived notions about ancient beasts by sharing recent discoveries.

Aquarium Under Construction (April 2007 – January 2008) offered a behind-the-scenes look at how the Academy prepares 38,000 living creatures for the trek back to Golden Gate Park — with real holding tanks, food prep and medical stations, and the sharks, rays, and reef fish that will inhabit the new Academy.

... Groundbreaking Research ...

In 1995, Dr. John McCosker, chair of the Department of Aquatic Biology, discovered a strange, rabbit-faced creature more than 1,200 feet underwater. After more than a decade of careful examination, the shark was designated a new species named *Hydrolagus mccoskeri*, or Galapagos ghost shark.

Herbarium collections manager Dr. Debra Trock has contributed her work on the Asteracae family, which includes sunflowers, dandelions, lettuce, and daisies, to the *Flora of North America* series. When completed in 2011,

the ambitious, 30-volume publication will combine the work of some 900 botanists, covering more than 20,000 plant species.

Academy entomologists have changed the world's perceptions of spiders and ants. In Madagascar, Jeremy Miller discovered a new species of spitting spider that lives in colonies and collaborates to subdue large prey—in contrast to the 99.9 percent of spider species that are solitary. Meanwhile, Brian Fisher clocked trap-jaw ants of the species *Odontomachus bauri* snapping their mandibles at 145 miles per hour — enough to propel the creature up to 8 centimeters, the equivalent of a 44-foot high jump for humans.

... Important Education Programs ...

In 2007, more than 100 talented undergraduates —a record number—competed for coveted internships through the Academy's Summer Systematics Institute, funded by the National Science Foundation and Robert T. Wallace Foundation. Closely mentored by Academy scientists over eight intense weeks, the nine selected interns used the Academy's collections to conduct independent research—the first step toward careers in science.

... Adventurous Expeditions ...

On a Spring expedition to the islands of Sao Tome and Principe, in the Gulf of New Guinea off western Africa, scientists searched fog-enshrouded jungles, giant volcanic pillars, and tide pools for rare beetles, tree frogs, mushrooms and other species.

In the Fall, a team in Yunnan, China's Gaoligong Mountains—one of the world's 34 biodiversity hotspots—made spectacular finds while exploring isolated peaks, glacier-carved valleys, waterfalls, tunnels, and high-altitude lakes. Highlights included a 4,000-meter trek up Mt. Kawa Karpu to discover unique species of beetles, harvestmen, and wintergreen.

... and Time in the Spotlight

On March 23, 2007, the Academy made *The New York Times* in an article featuring Rana Creek, the ecological design firm at work on the new Academy's living roof. Comparing it to the Hanging Gardens of Babylon, the *Times* called the Academy's 2.6 million pounds of undulating plants and soil "the country's most technically ambitious eco-roof," leading the modern green roof movement.

In Summer 2007, a film crew from the Discovery Channel's "Extreme Engineering" program spent a month capturing the complex construction of the new Academy—including the daily work of as many as 550 carpenters, welders, and other specialists.

New Academy Update

On November 1, 2007, the Academy officially took possession of its new building in Golden Gate Park. Just over two years after contractors from Webcor Builders broke ground on the site of the Academy's future home, they handed over the keys to a 410,000-square-foot aquarium, museum, and planetarium—a stunning example of sustainable architecture that blends seamlessly into the park.

While the external construction is now complete, the work is far from over. Inside the building, rockwork specialists from Dixon Studios are finishing up the rock platforms that will provide attachment sites for over 1,500 colonies of coral in the new Philippine Coral Reef tank. Similar to concrete, this material has a high pH, so Steinhart Aquarium biologists are treating the tank with acid to lower the pH and create a fish-friendly environment. In December, the tank will be filled with salt water for the first time, and by the end of the month it will be ready to receive its first corals.

Work is also underway on the four-story Rainforests of the World exhibit. Misting lines are currently being installed to provide the necessary levels of humidity inside the dome, and large planter boxes for seven living trees are being filled with soil. The trees for the exhibit are currently being grown in Florida and are now nearly 25 feet tall. In December, they will be shipped to San Francisco in a climate-controlled truck and lifted into the dome, where the temperature will be kept at a constant 82 degrees Fahrenheit.

The historic bronze seahorse railing that bordered the original tank has been reinstalled around the perimeter of the new Swamp and will soon bring back fond memories for thousands of visitors. Many of the original hand-painted ceramic tiles have also been reused in the tank walls. In the spring, the tank will receive its new residents: American alligators and alligator snapping turtles. One of the alligators is sure to attract the lion's share of the attention—an albino, its skin is a startling shade of white.

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Naked Juice
Josephine G. Nattkemper
Jackie and Howard Nemerovski
Jeanne Newman
Nancy and Bill Newmeyer
Sue and Ward Noble
Mr. Michael J. Nolin
Nora Norden
Rachel H. Norman
Carol and John Northwood
Mr. and Mrs. Clyde W. Ostler
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Bruce and Vicki Pate
Mike and Laura Patnode
Virginia Patterson
Olga Perkovic and David Goodstein
Annette F. Perry
Estate of Paula Phillips
Christine Pielenz
Barbara Pino, Elena Goldstein,
Adam Goldstein, Evan Goldstein
Tom and Carol Platner
Drs. Joan and Allan Pont
Lynn and Edward Poole
Barbara M. Pope
Ms. Colleen Prince
and Mr. Jeffrey M. Judd
Dr. Wojciech J. Pulawski
and Veronica Ahrens-Pulawski
Mr. and Mrs. Preston Raisin
Harold and Suzanne Raphael
Drs. Garry A. Rayant
and Kathy Fields-Rayant
Mrs. Janie P. Rempel
Mr. and Mrs. Hugh E. Reynolds
Beverly Riehm
and Randall Borcherding
Road Runner Sports
Jeanne and Sanford Robertson
B.T. Rocca, Jr. Foundation
Larissa Roesch
Thomas and Shelagh Rohlen
Jack and Fran Rominger
Richard H. Salz
J.P. and Kelly Scandalios
Michael Scharfenstein
Herbert and LaVerne Schmidt
Ruth Gordon Schnapp
and Michael H. Schnapp
Mr. and Mrs. Michael Schnoll
Mary and Leonard Schreiber
Elizabeth Schultz
Dale and Hayedeh Scott
Patricia K. Scott Fund
of Episcopal Charities
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Olivia Sears and Craig Bicknell
Mr. and Mrs. Barton W. Shackelford
Dr. and Mrs. Max D. Shaffrath
Dr. and Mrs. John W. Shell
Richard Shrieve and Yvonne Don
Dr. Jon F. Sigurdson
and Margaret J. Sigurdson
Colleen and John Silcox
Mr. Michael Simon
The Family of Kent Slaney
and Jensen Hsiao
John R. Smith and Family
Glenn Snyder and Catherine Allman
Jeffrey and Dunja Solari
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Mrs. Alice B. Stearns
Mrs. Ann C. Steppan
Mr. Earl Rick Stokes
and Mr. Ross H. Moore
Mr. Daniel E. Stone
Edgar N. Stone
Mrs. Mary Lee Strebl
Adrianna Pope Sullivan
Mrs. John A. Sutro
Mrs. Roselyne Swig
Kat Taylor and Tom Steyer
Randy Taylor
Christopher Tellis
and Isabella Kirkland
Valentine Thaler
Katharine S. and Morley Thompson
Mrs. Marilyn Thompson
The Tilton Family
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Joe and Edith Tobin
Jocelyn Tom and John G. Lee
Traci's Gourmet Granola
Mr. and Mrs. Arthur Trueger
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and Patricia V. Post
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Richard A. Vignolo
Hugh and Eleanor Visser
Vartan and Lorraine Voskanian
Jake and Cindy Walker
Danielle and Brooks Walker, Jr.
Harlan and Delcey Watkins
The Watkins Family
Willene M. and Paul L. Wattis, Jr.
Mr. and Mrs. Paul L. Wattis, III
Richard and Virginia Welsh
Wallace and Eve Wertsch
Colin and Elisa Wiel
Bobbie and Michael W. Wilsey
Mr. and Mrs. James Wintersteen
Mr. and Mrs. Douglas Wolf
Wil and Helen Wong
Woodside Chiropractic
c/o Alwender Chiropractic
Mr. Paul Pao S. Yeh
and Ms. Miao Yeng H. Yeh
Mr. David Zicarelli
and Ms. Virginia Troyer
Anonymous

Fellows

Academy Fellows are recognized for their notable contributions to the natural sciences. They remain members of the Fellowship for life.

Fellows	Field
Warren O. Addicott	Invertebrate Zoology
Frank Almeda	Botany
Walter Alvarez	Geology
Steven C. Anderson	Herpetology
Christopher R. Andrews	Aquarium Management & Parasitology
Fred Andrews	Entomology
Paul H. Arnaud	Entomology
Alissa J. Arp	Marine Biology
Frank Asaro	Nuclear Chemistry
Francisco J. Ayala	Genetics
Bruce G. Baldwin	Botany
George E. Ball	Entomology
Richard T. Barber	Marine Biology
Anthony D. Barnosky	Paleontology
Reginald H. Barrett	Environmental Science
John Barron	Micropaleontology
Bruce Bartholomew	Botany
William J. Bennetta	Science & Public Policy
Brent Berlin	Anthropology
Howard A. Bern	Zoology
Giacomo Bernardi	Ichthyology
William B. Berry	Paleontology
James A. Blake	Invertebrate Zoology
Barbara A. Block	Evolutionary, Cellular, and Molecular Physiology
Carol L. Boggs	Evolutionary Ecology
Stephen Bollens	Biological Oceanography
Sarane T. Bowen	Genetics
Dennis Breedlove	Botany
Max C. Brewer	Research Specialist
Winslow R. Briggs	Botany
Robert D. Brown, Jr.	Geology
Thomas D. Bruns	Mycology
Robert W. Buddemeier	Environmental Studies
Margaret G. Burke	Behavioral Ecology & Education
Gregor M. Cailliet	Ichthyology
Roy L. Caldwell	Invertebrate Zoology
Sandra J. Carlson	Paleontology
Edward J. Carpenter	Biological Oceanography and Marine Microbiology
Mark H. Carr	Marine Ecology
Robert L. Christiansen	Geology
Christopher Chyba	Astrobiology
David A. Clague	Volcanology
William A. Clemens	Paleontology
Lloyd S. Cluff	Geology
Kenneth Coale	Oceanography

Robert K. Colwell	Zoology
Margaret W. Conkey	Anthropology
Edward Connor	Ecology
T. J. Conomos	Marine Geology
Lawrence Cory	Zoology
Daniel P. Costa	Vertebrate Ecology
Dale P. Cruikshank	Planetary Astronomy
Garniss H. Curtis	Geology
Howell Daly	Entomology
Thomas F. Daniel	Botany
Donald J. De Paolo	Geoscience
Dennis E. Desjardin	Mycology
David DesMarais	Geology and Astrobiology
Marian C. Diamond	Anatomy
Daniel Doak	Evolutionary Ecology
Robert V. Dowell	Entomology
John T. Doyen	Entomology
James A. Doyle	Botany
Robert Drewes	Herpetology
Richard Dugdale	Oceanography
John P. Dumbacher	Ornithology
Thomas O. Duncan	Botany
Thomas Dunne	Geomorphology and Hydrology
William Durham	Human Biology
Sylvia A. Earle	Botany
Paul R. Ehrlich	Conservation Biology
Emil R. Eisenhardt	Conservation
Paul Ekman	Comparative Psychology
Peter M. Elias	Medicine
Thomas S. Elias	Botany
David Epel	Cell and Developmental Biology
Don C. Erman	Fisheries Ecology
Terry L. Erwin	Entomology
William N. Eschmeyer	Ichthyology
James A. Estes	Marine Ecology
Sandra Faber	Astronomy
Gregory C. Farrington	Chemistry
Daphne G. Fautin	Invertebrate Zoology
Lewis J. Feldman	Botany
Marcus W. Feldman	Mathematical Biology
Peggy L. Fiedler	Botany
Francis P. Filice	Zoology
Alexei Filippenko	Astronomy
Brian Fisher	Entomology
Michael S. Foster	Marine Biology
Laurel R. Fox	Ecology
Laurence G. Frank	Mammalogy
Andrew Fraknoi	Astronomy
Peter W. Fritsch	Botany
Jon S. Galehouse	Geology
Jacques A. Gauthier	Herpetology
Wayne M. Getz	Entomology
Michael T. Ghiselin	Invertebrate Zoology
Rosie Gillespie	Entomology
Alexander N. Glazer	Molecular and Conservation Biology
Stephen Glickman	Psychology
Lynda J. Goff	Phycology
Charles Goldman	Zoology
Michael A. Goldman	Medical Genetics & Chromosomal Evolution
Deborah M. Gordon	Ecology
Terrence M. Gosliner	Malacology
H. Gary Greene	Marine Geology
David W. Greenfield	Community Ecology of Reef Fishes
Charles E. Griswold	Entomology
Karen Grove	Geology
John E. Hafernik	Entomology
Christopher Harrold	Marine Biology, Coservation
John Harte	Environmental Studies
David Haussler	Computer Science
Tyrone Hayes	Herpetology
Carl E. Heiles	Astronomy
Carole S. Hickman	Paleontology
Frederick G. Hochberg	Invertebrate Zoology
Tori M. Hoeler	Astrobiology, Biogeochemistry
John P. Holdren	Energy & Natural Resources
Gustavo Hormiga	Entomology
Sarah B. Hrdy	Anthropology
James C. Ingle	Paleontology
Lynn Ingram	Geology
Tomio Iwamoto	Ichthyology
Nina G. Jablonski	Anthropology
Matthew J. James	Paleontology and History of Science
David L. Jameson	Zoology
William A. Jensen	Botany
Donald C. Johanson	Anthropology
David L. Jones	Geology
Michael N. Josselyn	Ecology and Phycology
David H. Kavanaugh	Entomology
James C. Kelley	Oceanography
Donald Kennedy	Biological Sciences
William H. Kimbel	Anthropology
Patrick V. Kirch	Anthropology
David H. Kistner	Entomology
Richard G. Klein	Paleoanthropology
J. Patrick Kociolek	Diatom Studies
Mimi A. Koehl	Invertebrate Zoology
Walter D. Koenig	Avian Ecology
Watson M. Laetsch	Botany
Michael D. Lagios	Ichthyology
Robert S. Lane	Entomology
Lester H. Lange	Mathematics
Jean H. Langenheim	Botany
Leo F. Laporte	Geology
Ralph J. Larson	Ichthyology
John D. Lattin	Entomology
James V. Lawry, Jr.	Anatomy
Robin Lawson	Molecular Systematics
Burney J. Le Boeuf	Biology
Welton Lee	Invertebrate Zoology
William A. Lester	Physical Chemistry
Alan E. Leviton	Herpetology
Harlan Lewis	Botany
Paul Licht	Zoology
William Z. Lidicker	Mammalogy
Kent G. Lightfoot	Archaeology & Anthropology
David R. Lindberg	Malacology
Jere H. Lipps	Paleontology
Werner J. Loher	Entomology
Jerold Lowenstein	Medicine
York T. Mandra	Paleontology
Marc S. Mangel	Behavior and Ecology
Geoffrey Marcy	Astrophysics

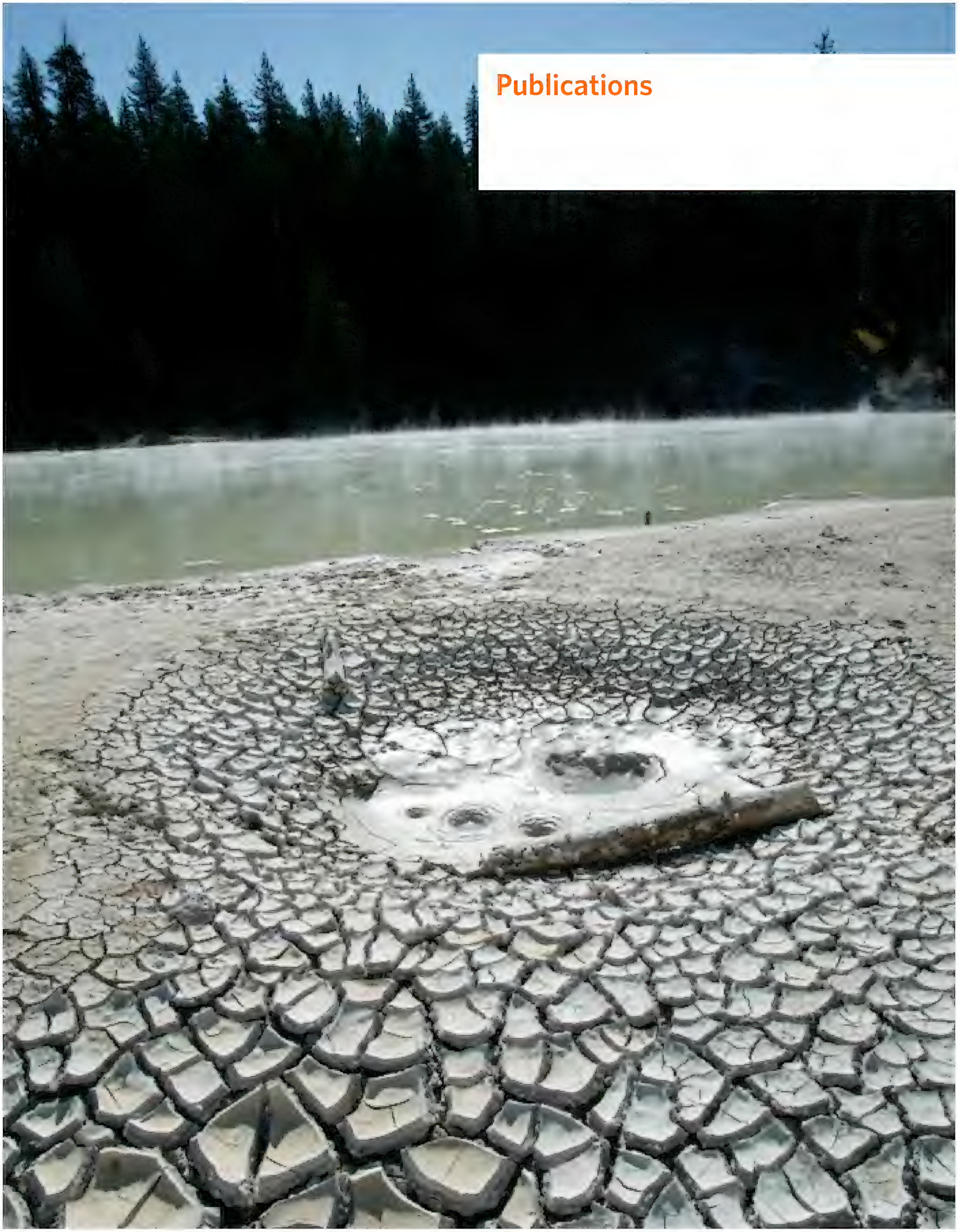
Hal Markowitz	Behavior Biology
Peter Marler	Ethology
John E. McCosker	Ichthyology
Alistair W. McCrone	Geology
Henry M. McHenry	Biological Anthropology
Monica Medina	Evolutionary Genomics & Systems Biology
Gopinathan Menon	Biochemistry
Woodrow W. Middlekauff	Entomology
Katharine Milton	Anthropology
Brent D. Mishler	Botany
Richard L. Moe	Phycology
John P. Monteverdi	Meteorology
Richard J. Mooi	Invertebrate Zoology
Harold A. Mooney	Environmental Science
Eldridge Moores	Geology
Reid Moran	Botany
Michael J. Moratto	Anthropology
Craig Moritz	Evolutionary & Conservation Genetics
David Morrison	Planetary Astronomy
Peter B. Moyle	Ichthyology
Richard Muller	Astrophysics
Michael A. Murphy	Paleontology & Geology
Donald Nevins	Botany
Frederic H. Nichols	Invertebrate Zoology
Thomas M. Niesen	Invertebrate Biology
Amos M. Nur	Geology
James Nybakken	Invertebrate Zoology
Kevin Padian	Paleontology
Stephen R. Palumbi	Molecular Evolution & Conservation Biology
Theodore Papenfuss	Herpetology
Ingrid Parker	Ecology
Sue Taylor Parker	Anthropology
Thomas Parker	Botany
Dennis R. Parnell	Botany
Robert Patterson	Botany
James Patton	Mammalogy
Vicki Buchsbaum Pearse	Invertebrate Zoology
Yvonne Pendleton	Astrophysics
David Perlman	Journalism
Raymond Pestrong	Geology
Lewis Petrinovich	Ornithology
Theodore W. Pietsch	Ichthyology
Norman I. Platnick	Entomology
George O. Poinar, Jr.	Entomology
Donald C. Potts	Invertebrate Zoology
Jerry A. Powell	Entomology
Mary E. Power	Ecology of Riverine Systems
Wojciech J. Pulawski	Entomology
Alexander H. Purcell	Entomology
Peter R. Raimondi	Marine Ecology
Katherine Ralls	Conservation Biology, Mammology
Janet Randall	Mammalogy
Peter H. Raven	Botany
Vincent H. Resh	Aquatic Biology
Don Reynolds	Botany
Wynetka A. Reynolds	Biochemistry
Peter J. Richerson	Cultural Evolution
Rollin C. Richmond	Evolutionary Genetics
John Rick	Archaeology & Paleoecology
Bruce Robison	Deep-sea Biology
Peter U. Rodda	Geology
Barbara Rogoff	Developmental Psychology
Peter Roopnarine	Intetebrate Paleontology
Edward S. Ross	Entomology
Barry Roth	Malacology & Paleontology
Lynn J. Rothschild	Astrobiology & Evolutionary Protistology
Joan E. Roughgarden	Herpetology
Eric Routman	Herpetology
Rodolfo Ruibal	Herpetology
Bruce Runnegar	Geology & Paleontology
Robert Sapolsky	Neuroendocrinology
Vincent M. Sarich	Anthropology
Russell L. Schweickart	Astrobiology
Eugenie Scott	Anthropology
Erwin Seibel	Oceanography
H. Bradley Shaffer	Herpetology
Arthur Shapiro	Zoology
James R. Shevock	Botany
Petra Sierwald	Entomology
Mary Silver	Biological Oceanography
Ellen L. Simms	Botany
Barry R. Sinervo	Ecology
Alan R. Smith	Botany
Arthur Smith	Entomology
Edmund Smith	Invertebrate Zoology
Thomas B. Smith	Ecology
George Somero	Evolutionary Biochemistry
Wayne P. Sousa	Marine Ecology
Howard Spero	Paleoceanography
Gregory Spicer	Invertebrate Zoology
Maureen L. Stanton	Population Biology
Robert C. Stebbins	Herpetology
Kim Steiner	Botany
Hilgard O. Sternberg	Geography
Calvin H. Stevens	Geology
Scott W. Stine	Physical Geography
David Stoddart	Geography
John L. Strother	Botany
Raymond Sullivan	Geology
James R. Sweeney	Botany
Frank Talamantes	Endocrinology
Frank H. Talbot	Ichthyology
Carol Tang	Paleontology
Jill Cornell Tarter	Astronomy
John W. Taylor	Mycology
Leighton Taylor	Ichthyology
Richard R. Tenaza	Mammalogy
John Thompson	Evolutionary Ecology
Robert F. Thorne	Botany
Robbin W. Thorp	Entomology
Catherine A. Toft	Ecology
Jack Tomlinson	Invertebrate Zoology
O. Brian Toon	Atmospheric Science
Charles H. Townes	Physics
Jonathan Trent	Astrobiology, Marine Biology, and Microbiology
Brian E. Tucker	Seismology, Seismic Safety, and Geology
John M. Tucker	Botany
James W. Valentine	Paleontology
Geerat Vermeij	Evolutionary Biology
Peter M. Vitousek	Ecology
David B. Wake	Herpetology
Marvalee H. Wake	Zoology
Peter D. Ward	Geology

Philip S. Ward	Ant Systematics
Marius S. Wasbauer	Entomology
Dorothy Washburn	Anthropology
Kenneth E. Watt	Zoology
Ward B. Watt	Evolutionary Biology
J. Dan Webster	Zoology
Christian M. Wemmer	Conservation Biology
Lisa E. White	Geology & Paleontology
Timothy D. White	Anthropology
Kipling W. Will	Entomology
Gary C. Williams	Invertebrate Zoology
Stanley C. Williams	Entomology
Susan L. Williams	Marine Ecology
Terrie Williams	Comparative Physiology
Frank G. Zalom	Entomology
Adrienne L. Zihlman	Anthropology
Irving Zucker	Biology
Emile Zuckerkandl	Molecular Evolution

Honorary Fellows

	Field
Bruce M. Alberts	Molecular Biology
Angel C. Alcala	Herpetology
Michele L. Aldrich	History of Science
E. N. Arnold	Herpetology
Aaron M. Bauer	Herpetology
Robert G. Bergman	Chemistry
Vladimir A. Beshkov	Herpetology
James L. Bischoff	Marine Geology
R. M. Bohart	Entomology
Michel Boudart	Chemistry
Margaret G. Bradbury	Ichthyology
Hugh Bradner	Physics
John I. Brauman	Chemistry
Thomas Briggs	Entomology
Stephen H. Bullock	Plant Ecology
Sherwin Carlquist	Botany
James Carpenter	Entomology
Alan Channing	Herpetology
Joan R. Clark	Mineralogy
William P. Cochlan	Biological Oceanography
Anne C. Cohen	Invertebrate Systematics
Daniel M. Cohen	Ichthyology
James P. Collman	Chemistry
Clarence S. Cook	Radiation Physics
Linda Cordell	Anthropology
Claudia Corti	Herpetology
Richard L. Doutt	Entomology
William T. Doyle	Botany
David M. Eakin	Physics
Anne H. Ehrlich	Conservation Biology
William R. Evitt	Paleontology
Gifford C. Ewing	Oceanography
Carl J. Ferraris, Jr.	Ichthyology
David M. Golden	Chemistry
George Gorman	Evolutionary Biology
Harry W. Greene	Herpetology
Joseph T. Gregory	Paleontology
Joseph G. Hall	Mammalogy
David Halpern	Physical Oceanography
Alexander Harcourt	Primatology
Susan P. Harrison	Conservation Biology
Colin O. Hermans	Invertebrate Zoology
Kim M. Howell	Herpetology
Michael E. Irwin	Entomology
Wim Kimmerer	Estuarine Ecology
Richard E. Leakey	Anthropology
Janet Leonard	Neurobiology & Behavior
Lowell N. Lewis	Botany
James P. Mackey	Herpetology
Donald B. McIntyre	Geology
Kathy Ann Miller	Marine Algal Systematics
Richard E. Packard	Physics
Lynne R. Parenti	Ichthyology
John S. Pearse	Invertebrate Zoology
Edwin P. Pister	Conservation Biology
Karl S. Pister	Civil Engineering & Education
Galen B. Rathbun	Mammalogy
D. C. F. Rentz	Entomology
George K. Roderick	Population Genetics & Evolutionary Biology
Peter Rodman	Anthropology
Jose Sarukhan	Botany
Donald E. Savage	Paleontology
Evert Schlinger	Entomology
Jacqueline Schonewald	Mammalogy
Harvey I. Scudder	Entomology
Howard S. Shellhammer	Mammalogy
Norman J. Silberling	Geology
Paul C. Silva	Botany
Leonard S. Sklar	Geology
Edward L. Smith	Entomology
Michael E. Soule	Evolutionary & Conservation Biology
Rudolph Stohler	Invertebrate Zoology
Ignacio Tinoco	Chemistry
Tjeerd H. van Andel	Geology
Blaire Van Valkenburgh	Vertebrate Paleontology
Robert E. Wallace	Geology
Robert C. Walter	Geology
Robert Wayne	Molecular Systematics
Harold F. Weaver	Astronomy
Cherie Wetzel	Botany
Frances Wilkerson	Biological Oceanography
Mark Wilkinson	Herpetology
Arthur P. Wolf	Anthropology
Richard N. Zare	Chemistry
Ermi Zhao	Herpetology

Publications



Some of the highlights from recent Academy publications include the description of a new eel species and an illustrated guide to the Sierras.

Anthropology

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Evans, Joseph. 2007. "The Rietz Collection of Food Technology, Department of Antrhopology, California Academy of Sciences." *Proceedings of the California Academy of Sciences* 58 (9): 155-169.

Aquatic Biology

Technical Papers

McCosker, J.E. and R.N. Lea. 2006. White Shark Attacks Upon Humans in California and Oregon, 1993-2003. *Proceedings of the California Academy of Sciences* 57(17): 479-501.

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Allen, G.R., J.E. McCosker, N.J. Cross, D.J. Bray and D.F. Hoese. 2006. Muraenidae. Pp. 243-259, in D.F. Hoese et al. (eds.) *Zoological Catalogue of Australia. Volume 35 Pisces*. Australian Government Publishing Service, Canberra.

McCosker, J.E., G.R. Allen, D.F. Hoese, J.E. Gates and D.J. Bray. 2006. Ophichthidae. Pp. 264-277, in D.F. Hoese et al. (eds.) *Zoological Catalogue of Australia. Volume 35 Pisces*. Australian Government Publishing Service, Canberra.

McCosker, J.E. 2007. The history of research at the California Academy of Sciences' Steinhart Aquarium and Department of Aquatic Biology. *Proceedings of the California Academy of Sciences* 58(11): 171-195.

McCosker, J.E. 2007. Luthulenchelys heemstraorum, a new genus and species of snake eel (Anguilliformes: Ophichthidae) from KwaZulu-Natal, with comments on Ophichthus rutidoderma (Bleeker, 1853) and its synonyms. Smithiana. Bulletin 7: 3-7.

McCosker J.E., D. Boseto and A. Jenkins. 2007. Redescription of Yirrkala gjellerupi (Weber & de Beaufort, 1916), a poorly-known freshwater Indo-Pacific Snake Eel (Anguilliformes: Ophichthidae). *Pacific Science* 61(1):141-144.

McCosker J.E., D. Boseto and A. Jenkins. 2007. Redescription of Yirrkala gjellerupi (Weber & de Beaufort, 1916), a poorly-known freshwater Indo-Pacific Snake Eel (Anguilliformes: Ophichthidae). *Pacific Science* 61(1):141-144.

Popular Articles

An Africa without elephants? 2007 California Academy of Sciences African Wildlife Calendar. Photographs by F. Bam, text by J.E. McCosker. California Academy of Sciences, San Francisco, California.

Return To Tanah Air Kita. 2007 California Academy of Sciences Sea Life Calendar. Photographs by F. Bam, text by J.E. McCosker. Tide-Mark Press, Windsor, Connecticut.

Botany

Ji, Y.-H., P. W. Fritsch, H. Li, T. J. Xiao, and Z. K. Zhou. 2006. Phylogeny and classification of *Paris* (Melanthiaceae) inferred from DNA sequence data. Annals of Botany 98: 245-256.

Daniel, T.F. 2006. Synchronous flowering and monocarpy suggest plietesial life history for neotropical *Stenostephanus chiapensis* (Acanthaceae). *Proceedings of the California Academy of Sciences* 57: 1011—1018.

Daniel, T.F. 2006. Chromosome numbers of miscellaneous Malagasy Acanthaceae. *Brittonia* 58: 291—300.

Daniel, T.F. and M. Fontaine. 2007 ("2006"). Rediscovering San Francisco's Native Flora. *Fremontia* 34: 3—10.

Daniel, T.F. 2007. 14.25 *Sphenopholis* Scribn. Pp. 620—624 in M.E. Barkworth et al., *Flora of North America*, vol. 24. Oxford University Press, New York.

Daniel, T.F. 2007. 14.50 *Gaudinia* P. Beauv. Pp. 732—733 in M.E. Barkworth et al., *Flora of North America*, vol. 24. Oxford University Press, New York.

Daniel, T.F., B.A.V. Mbola, F. Almeda, and P. Phillipson. 2007. *Anisotes* (Acanthaceae) in Madagascar. *Proceedings of the California Academy of Sciences* 58: 121—131.

Magnaghi, E.B. and T.F. Daniel 2007. Floral ecology of *Mendoncia cowanii* (Acanthaceae: Thunbergioideae) in Madagascar. *Plant Biology and Botany 2007: Poster Abstract Book*, p. 305.

McDade, L.A., C.A. Kiel, and T.F. Daniel. 2007. Justicieae revisited: increased taxon sampling and characters support a new lineage and more "justicioid" Diclipterinae. *Plant Biology and Botany 2007 Program & Abstract Book*, pp. 245—246.

Wenk, R. and T.F. Daniel. 2007. Molecular phylogeny and biogeography of *Elytraria* (Acanthaceae: Nelsonioideae). *Plant Biology and Botany 2007: Poster Abstract Book*, p. 293.

Center for Biodiversity Research & Information

Scientific publications

Aliaga-Rossel, E., McGuire, T.L. and Hamilton, H. 2006. Distribution and encounter rates of the river dolphin (Inia geoffrensis boliviensis) in the central Bolivian Amazon. *Journal of Cetacean Research and Management*. 8(1):87-92.

Abstracts, Reviews, and popular publications

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Fernández, M., Reichle, S., Ziller, S. Randall, J. and H. Hamilton. 2007. Construyendo mejores y mas eficientes modelos predictivos que permitan anticipar invasiones biológicas en Sudamérica. *Resumenes del V Congreso Nacional de Biología*, Santa Cruz, Bolivia.

Fernández M., Zambrana-Torrelio C. M., Calderon J., Tejeda W., Villanueva G., Villalpando G., & H. Hamilton. 2007. Using predictive models of species distributions to evaluate the effects of climate change in Bolivia: conservation implications. *Abstracts of the Annual Meeting for the Association for Tropical Biology and Conservation*. Morelia, Mexico.

Saarman, N. 2007. Demystifying the Mythical Seahorse. *Breakthroughs: Journal of the UC Berkeley College of Natural Resources*. Winter 2007: p.14-15.

Terry, C., Fernández, M., Kreibel R., Almeda F., and H. Hamilton. 2007. "Expanding uses for ecological niche modeling: a bridge between systematics and biogeography". *Abstracts of the Annual Meeting of the American Association of Geographers*, San Francisco, CA

Entomology

Wood, H. M. In press. A revision of the assassin spiders of the Eriauchenius gracilicollis group, a clade of spiders endemic to Madagascar (Araneae, Archaeidae). *Zoological Journal of the Linnean Society.*

Tang, G., C. M. Yin, C. E. Griswold and X. J. Peng. 2006. Description of *Sinothomisus* gen. nov. with a new species from Yunnan Province, China (Araneae, Thomisidae). *Zootaxa* 1366: 61–68.

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Ramírez, M.J., J.A. Coddington, W.P. Maddison, P.E. Midford, L. Prendini, J. Miller, C.E. Griswold, G. Hormiga, P. Sierwald, N. Scharff, S.P. Benjamin, & W.C. Wheeler. 2007. Linking of digital images to phylogenetic data matrices using a morphological ontology. *Systematic Biology*. 56(2):283—294.

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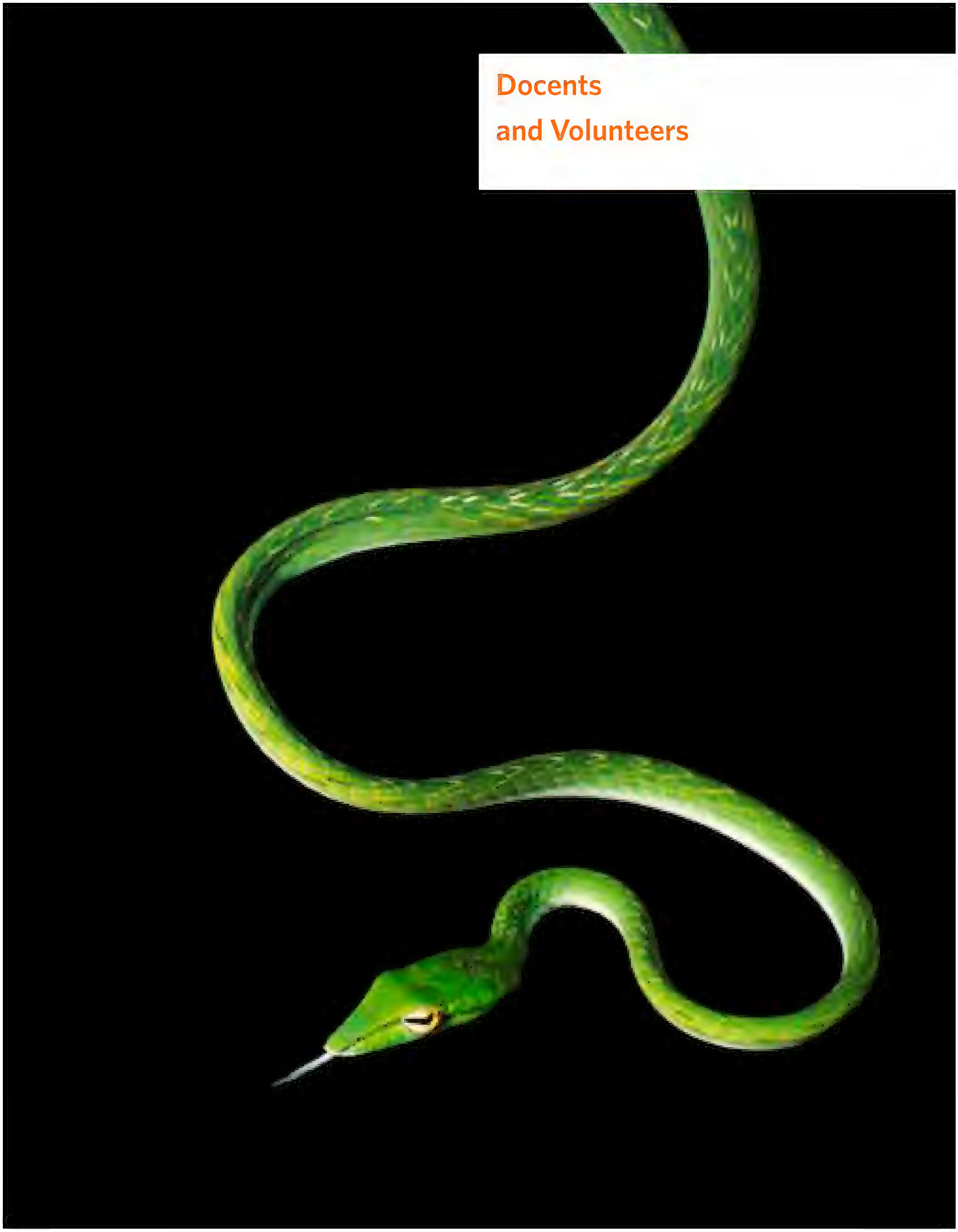
Docents and Volunteers



Docents and volunteers channel their passion for lifelong learning into a variety of roles at the Academy. They range in age from 16 to 94.

Parvaneh Abbaspour
Jean Adams
Maureen Aggeler
William Ahern
Julie Alden
Barbara Anderson
Barbara D. Andrews
Jackie Andrews
Mary Angelich
Carmelita Arburua
Connie Armitage
Madeline Arnaud
Mary Ann Aronson
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Rynda Hudman
Elena Huey
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Jocelyn Hunter
Walter Hurst
Ann Hutchison
Nicholas Allen Hyde
Mary Ann Irvine
Cynthia Jackson
William Jackson
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Sachi Jain
Anet James
Sarah James
Therese James
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Nani Jansen
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Natalia Jessen
Wesley Jessup
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Kameran Johnson
Sonja Johnson
Linda Johnston
Bertha Jones
Ed Jones
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Logan Kahle
Rachel Kalman
Ruth Kamena
Christine Kasman
Mamiko Kawaguchi
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Rosina Kendall
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Sonny Lopez
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Bill Mitchell
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Kristen Natali
Joelene Nation
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Jean Neff
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Maxime Louise Newman
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Financial Report

June 30, 2007, with comparative totals for 2006

Assets	Operating	Plant	Endowment	2007	2006
Cash & Equivalents	$323,634	$1,077,989	-	$1,401,623	$6,651,000
Investments in Marketable Securities	2,869,779	124,058,928	$160,938,889	287,867,596	304,263,952
Receivables:					
Research Grants	755,566	-	-	755,566	125,865
Other Grants	11,845	54,010	-	65,855	281,846
Interest & Dividends		868,659	376,194	1,244,853	1,415,068
Other Receivables, net	92,243	7,210,238	-	7,302,481	217,225
Contributions, net	98,595	48,255,046	2,594,502	50,948,143	53,334,033
Due (to) from other funds	968,697	-	(968,697)	-	-
Inventory	22,390		-	22,390	59,985
Prepaid Expenses	884,432	728,874	-	1,613,306	2,757,158
Notes Receivable, net	-	-	7,776,088	7,776,088	8,637,405
Investments Held in Trust	-	-	5,584,711	5,584,711	5,443,418
Restricted Cash	-	350,000	-	350,000	350,000
Deferred Bond Financing Costs, Net	-	7,580,576	-	7,580,576	7,862,743
Property & Equipment at cost, less Accumulated Depreciation	-	311,596,577	-	311,596,577	169,553,902
Total Assets	**$6,027,181**	**$501,780,897**	**$176,301,687**	**$684,109,765**	**$560,953,600**
Liabilities & Net Assets					
Accounts Payable	$738,188	$19,563,506	-	$20,301,694	$17,802,360
Accrued Expenses & Other Liabilities	1,374,600	784,186	748,022	2,906,808	2,247,919
Deferred Income	270,197	-	-	270,197	242,211
Annuities Payable	-	-	2,224,858	2,224,858	1,619,596
Series 2003-A Bonds	-	180,000,000	-	180,000,000	180,000,000
Other Long Term Liability	-	504,902	-	504,902	480,842
Total Liabilities	**2,382,985**	**200,852,594**	**2,972,880**	**206,208,459**	**202,392,928**
Unrestricted Net Assets					
Available for Operations	703,524	88,702,772	15,000,000	104,406,296	58,944,136
Invested in Property & Equipment	-	144,181,804	-	144,181,804	83,203,779
Designated for Endowment	-	-	112,484,142	112,484,142	98,712,489
Total Unrestricted	703,524	232,884,576	127,484,142	361,072,242	240,860,404
Temporarily Restricted Net Assets	2,940,672	68,043,727	8,183,860	79,168,259	83,212,319
Permanently Restricted Net Assets	-	-	37,660,805	37,660,805	34,487,949
Total Net Assets	**3,644,196**	**300,928,303**	**173,328,807**	**477,901,306**	**358,560,672**
Total Liabilities & Net Assets	**$6,027,181**	**$501,780,897**	**$176,301,687**	**$684,109,765**	**$560,953,600**

Statement Activities / Years Ended June 30, 2007 and 2006

Changes in Net Assets	Operating	Plant	Endowment	2007	2006
Revenue & Gains					
Admissions	$904,696	-	-	$904,696	$828,451
Contributions	2,577,494	$21,765,803	$328,496	24,671,793	15,454,418
Memberships	737,591	-	-	737,591	612,076
Tuition & Program Fees	696,332	-	-	696,332	691,999
Auxiliary Activities	177,148	-	-	177,148	708,835
Government Grant Income	2,805,565	2,000,000	-	4,805,565	1,728,896
City & County of San Francisco	2,042,327	68,013,818	-	70,056,145	33,679,666
Investment Income	417,012	7,030,554	2,641,416	10,088,982	10,485,588
Net Realized and Unrealized Gains on Long-Term Investments	11,028	(500,107)	16,444,285	15,955,206	6,498,144
Gain on Sale of Property and Equipment		1,067		1,067	8,495,244
Net Assets Released from Restrictions	1,312,761	17,901,988	9,065,769	28,280,518	7,102,607
Total Revenue & Gains	**11,681,954**	**116,213,123**	**28,479,966**	**156,375,043**	**86,285,924**
Expenses					
Research	7,931,258	2,548,892	-	10,480,150	10,611,764
Public Programs	3,391,125	755,078	-	4,146,203	3,981,755
Aquarium	3,156,034	561,990	-	3,718,024	3,193,290
Development & Membership	1,875,223	1,471,467	-	3,346,690	3,335,935
Auxiliary Activities	173,856	49,348	-	223,204	1,014,345
Management & General	3,026,740	726,679	-	3,753,419	2,341,279
New Academy & Transition		10,495,515	-	10,495,515	8,524,738
Total Expense	**19,554,236**	**16,608,969**	-	**36,163,205**	**33,003,106**
Transfers Between Funds					
Capital Expenditures	(379,024)	379,024	-	-	-
Other Transfers	8,325,477	1,232,836	(9,558,313)	-	-
Cumulative Effect of Accounting Change for Asset Retirement Obligations					(112,500)
Changes in Temporarily Restricted Assets	949,837	(1,353,754)	(3,640,143)	(4,044,060)	30,470,404
Changes in Permanently Restricted Assets	-	-	3,172,856	3,172,856	1,871,508
Increase/(Decrease) in Net Assets	**1,024,008**	**99,862,260**	**18,454,366**	**119,340,634**	**85,512,230**
Net Assets Beginning of Year	**2,620,188**	**201,066,043**	**154,874,441**	**358,560,672**	**273,048,442**
Net Assets End of Year	**$3,644,196**	**$300,928,303**	**$173,328,809**	**$477,901,306**	**$358,560,672**

California Academy of Sciences
55 Music Concourse Drive
San Francisco, CA 94118
415.379.8000
www.calacademy.org